

## Claims:

1. A method of debugging a processor, said method comprising:
  - a) providing information about processor activity in real time;  
and
  - b) associating the instructions executed by the processor with the information about processor activity.
2. A method according to claim 1, wherein:

the information about processor activity includes an indication of at least one of whether the last instruction executed was a jump, a jump based on the contents of a register, a branch taken, or an instruction which encountered an exception.
3. A method according to claim 1, further comprising:
  - c) providing information regarding the status of the processor when certain processor events occur, said certain processor events including at least one of a change in status of an interrupt line, an internal processor exception, and the execution of a jump instruction based on the contents of a register.